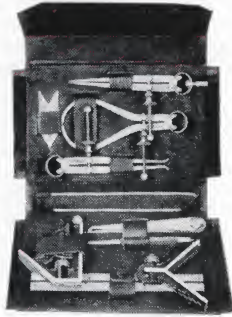


STARRETT TOOLS FOR Students and Apprentices

Starrett Tools are standard school shop equipment. The features that make Starrett Tools the choice of experienced craftsmen are just as helpful to students and apprentices. Every Starrett Tool combines accuracy and durability in a way that gives lasting service and satisfaction. Start the right way. Use Starrett Tools. Sold by leading Hardware, Automotive and Mill Supply Dealers. Ask for complete Starrett Catalog. It's Free.



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A valuable aid to Instructors as well as Students and Apprentices. Assists in teaching the correct use of Precision Tools. Fourteen blue printed pages, 8" x 10½", punched to fit a standard student's notebook. Each page shows a different tool and how to use it. Furnished at cost to instructors, students or apprentices—10 cents per set.



SCREW THREADS AND TAP DRILL SIZES

N C or A.S.M.E. SPECIAL MACHINE SCREWS

Size of Tap	Thds. per Inch	Tap Drill	Body Drill
1	64	53	47
2	56	50	42
3	48	47	37
4	40	43	31
5	40	38	29
6	32	36	27
8	32	29	18
10	24	25	9
12	24	16	2

N P T PIPE THREADS

Size of Tap	Thds. per Inch	Tap Drill
1/8	27	R
1/4	18	7/16
3/8	18	37/64
1/2	14	23/32
3/4	14	59/64
1	11 1/2	1 1/32
1 1/4	11 1/2	1 1/2
1 1/2	11 1/2	1 11/16
2	11 1/2	2 7/32
2 1/2	8	2 3/8
3	8	3 1/4

Tap Drills allow approx. 75% Full Thread
N.P.T. = American National Taper Pipe Thread

DISTRIBUTED BY

N F or A.S.M.E. STANDARD MACHINE SCREWS

Size of Tap	Thds. per Inch	Tap Drill	Body Drill
2	64	50	42
3	56	45	37
4	48	42	31
5	44	37	29
6	40	33	27
8	36	29	18
10	32	21	9
*10	30	22	9
12	28	14	2

*A.S.M.E. only

N F or S.A.E. STANDARD SCREWS

Size of Tap	Thds. per Inch	Tap Drill
1/4	28	3
5/16	24	1
3/8	24	Q
7/16	20	25/64
1/2	20	29/64
9/16	18	33/64
5/8	18	37/64
*11/16	16	5/8
3/4	16	11/16
7/8	14	13/16
1	14	15/16
1 1/8	12	13/64

*S.A.E. only

HELPFUL INFORMATION FOR Students and Apprentices



Including

**HOW TO READ A MICROMETER
DECIMAL AND MILLIMETER
EQUIVALENTS FOR FRACTIONAL
PARTS OF AN INCH
SCREW THREADS AND TAP
DRILL SIZES**

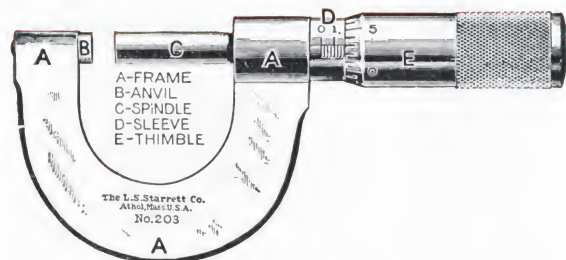
THE L. S. STARRETT CO.
World's Greatest Toolmakers
ATHOL • MASSACHUSETTS

HOW TO READ A MICROMETER CALIPER

Starrett

Decimal and Millimeter Equivalents of Fractional Parts of an Inch

follow these directions and you'll
learn easily . . . in five minutes



1. Get a micrometer and turn the thimble (see diagram above) until the spindle and the anvil are together. Notice how the thimble is graduated at the edge into 25 divisions. Also notice how the 0 division on the *thimble* and the mark on the *sleeve* come together when the micrometer is closed.

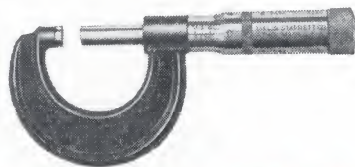
2. Turn the thimble one of these 25 divisions. If you hold the micrometer to the light, you can barely see a space between the anvil and the spindle. That space is one-thousandth of an inch (.001").

3. Turn the thimble 25 divisions and notice how a cross-line appears on the sleeve. Turn it another complete turn and notice how another cross-line shows up. Each cross-line means 25 thousandths (.025").

4. Now turn it two more complete turns. You have four cross-lines in sight now and the fourth is

marked 1. Since each of the cross-lines stands for 25 thousandths, the 1 means 100 thousandths, or .100". Turn it four more turns and you get four more cross-lines, with the last one marked 2. The 2 stands for 200 thousandths, or .200". And so on, with 3, 4, etc.

5. Now notice how far the micrometer in the picture is open. The 1 line is visible. That accounts for 100 thousandths of an inch (.100"). Then there are three more cross-lines (you have to look closely for the third). They account for 25 thousandths (.025") apiece, or .075". On top of that there are three divisions on the thimble beyond the 0 mark, each one standing for 1 thousandth. That makes .003" more. Now, add them up: .100 plus .075 plus .003 equals .178. That's the reading: .178". It's as simple as making change; and as a matter of fact, almost the same as making change if you count the figures on the sleeve as *dollars*, the cross-lines on the sleeve as *quarters* and the divisions on the thimble as *cents*.



STARRETT MICROMETER No. 436

A practical, inexpensive micrometer. Range, 0 to 1 inch by thousandths. A quick reference table of decimal equivalents is etched on the thimble.

Inches		Inches	mm	Inches		Inches	mm
1-32	1-64	.01563	.397	17-32	33-64	.51563	13.097
	3-64	.03125	.794				.53125
1-16		.04688	1.191	9-16	35-64	.54688	13.890
		.0625	1.587				.5625
3-32	5-64	.07813	1.984	19-32	37-64	.57813	14.684
		.09375	2.381				.59375
1-8	7-64	.10938	2.778	5-8	39-64	.60938	15.478
		.125	3.175				.625
5-32	9-64	.14063	3.572	21-32	41-64	.64063	16.272
		.15625	3.969				.65625
3-16	11-64	.17188	4.366	11-16	43-64	.67188	17.065
		.1875	4.762				.6875
7-32	13-64	.20313	5.159	23-32	45-64	.70313	17.859
		.21875	5.556				.71875
1-4	15-64	.23438	5.953	3-4	47-64	.73438	18.653
		.25	6.350				.75
9-32	17-64	.26563	6.747	25-32	49-64	.76563	19.447
		.28125	7.144				.78125
5-16	19-64	.29688	7.541	13-16	51-64	.79688	20.240
		.3125	7.937				.8125
11-32	21-64	.32813	8.334	27-32	53-64	.82813	21.034
		.34375	8.731				.84375
3-8	23-64	.35938	9.128	7-8	55-64	.85938	21.828
		.375	9.525				.875
13-32	25-64	.39063	9.922	29-32	57-64	.89063	22.622
		.40625	10.319				.90625
7-16	27-64	.42188	10.716	15-16	59-64	.92188	23.415
		.4375	11.113				.9375
15-32	29-64	.45313	11.509	31-32	61-64	.95313	24.209
		.46875	11.906				.96875
1-2	31-64	.48438	12.303	1	63-64	.98438	25.003
		.5	12.700				1.00000